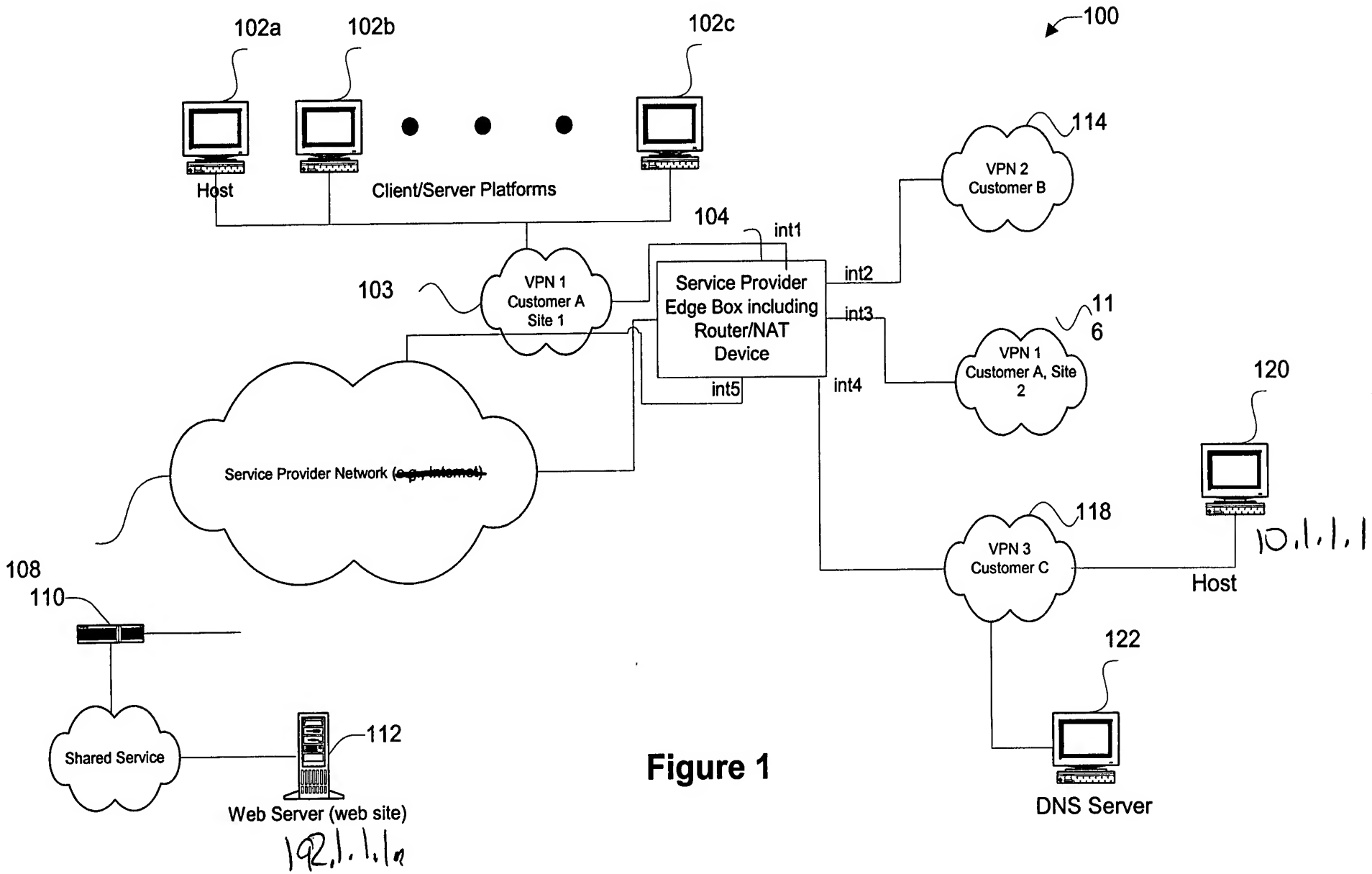
100
102a
102b
102c
Host
Client/Server Platforms
104
int1
103
VPN 1
Customer A
Site 1
Service Provider
Edge Box including
Router/NAT
Device
int2
int3
int4
int5
VPN 2
Customer B
114
11
6
VPN 1
Customer A, Site
2
120
Service Provider Network (e.g. Internet)
118
VPN 3
Customer C
10.1.1.1
Host
108
110
122
Shared Service
112
Web Server (web site)
192.1.1.1
DNS Server

Figure 1

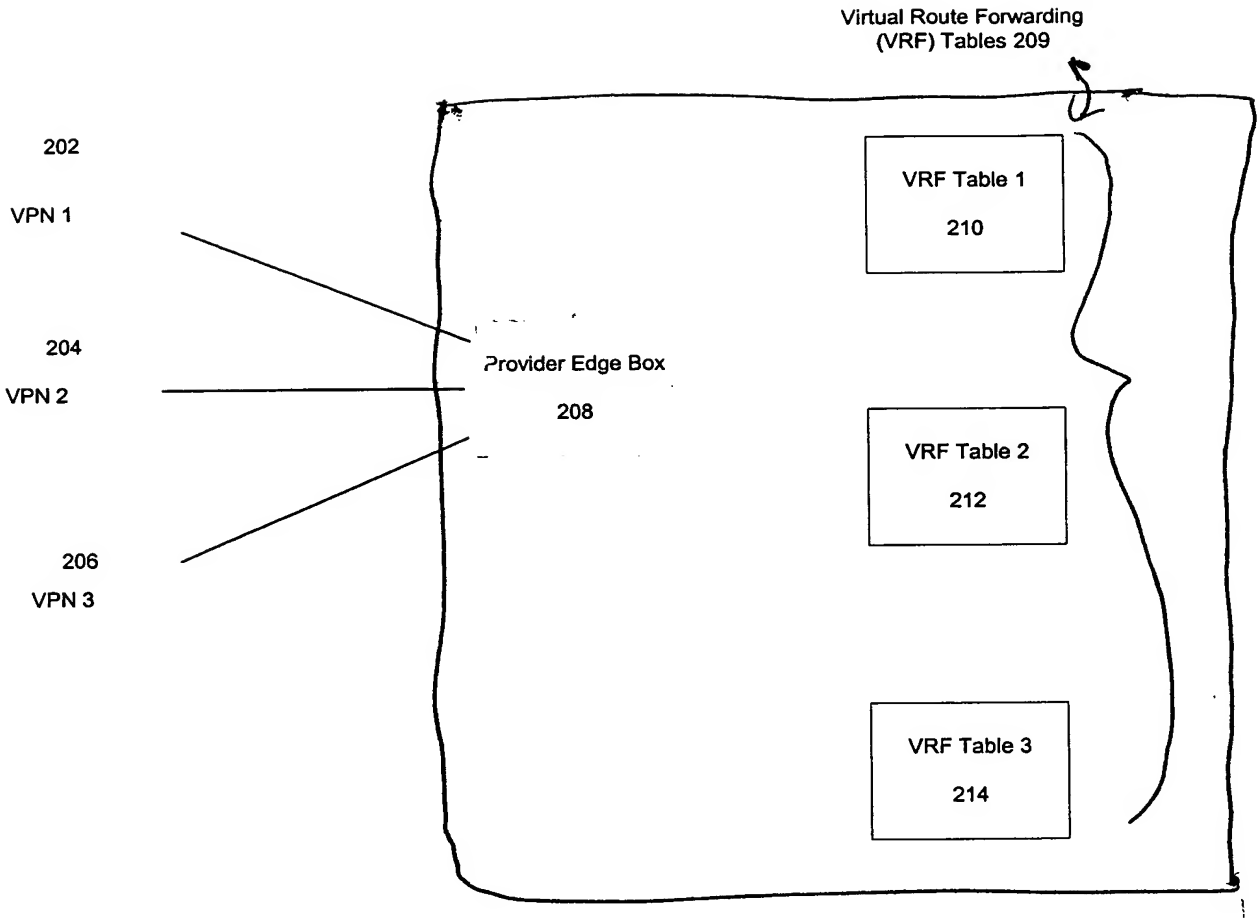
Virtual Route Forwarding
(VRF) Tables 209
202
VPN 1
204
VPN 2
206
VPN 3
Provider Edge Box
208
VRF Table 1
210
VRF Table 2
212
VRF Table 3
214

FIG. 2

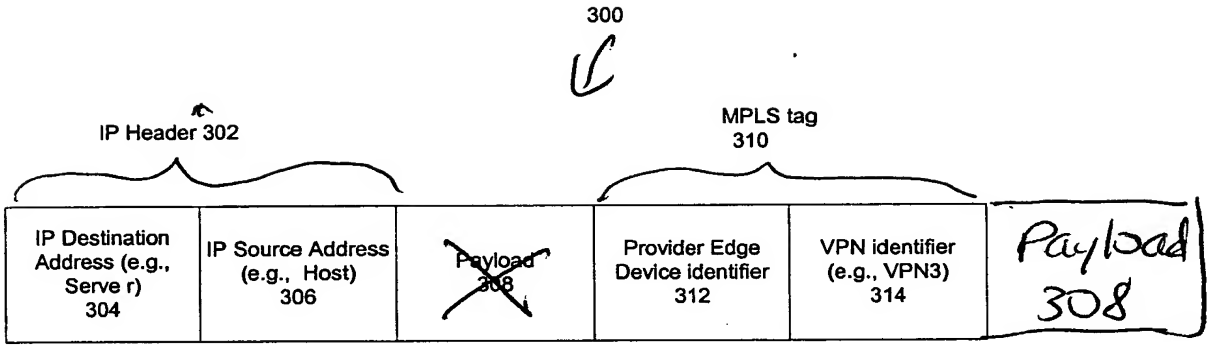
300
IP Header 302
MPLS tag
310
IP Destination Address (e.g., Serve r)
304
IP Source Address (e.g., Host)
306
Payload
308
Provider Edge Device identifier
312
VPN identifier (e.g., VPN3)
314
Payload
308

FIG. 3

400

TRANSLATION TABLE

402

VRF Table / VPN 404	Inside local 406	Inside public 408	Outside local 410	Outside public 412
VPN 1	10.1.1.1	172.1.1.1	192.1.1.1	192.1.1.1

FIG. 4

500

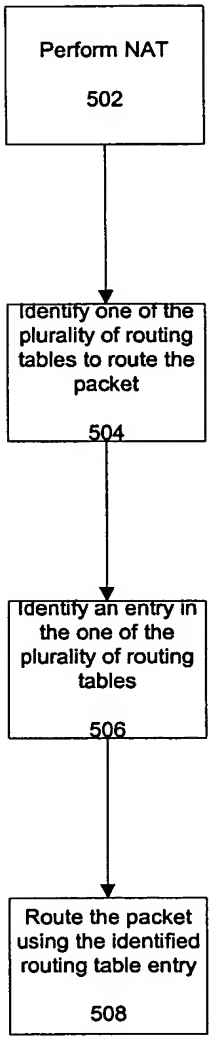
Perform NAT
502
Identify one of the plurality of routing tables to route the packet
504
Identify an entry in the one of the plurality of routing tables
506
Route the packet using the identified routing table entry
508

FIG. 5

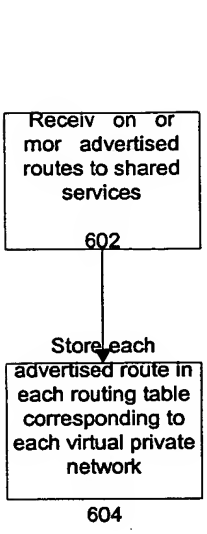
600
Receiv on or mor advertised routes to shared services
602
Store each advertised route in each routing table corresponding to each virtual private network
604

FIG. 6

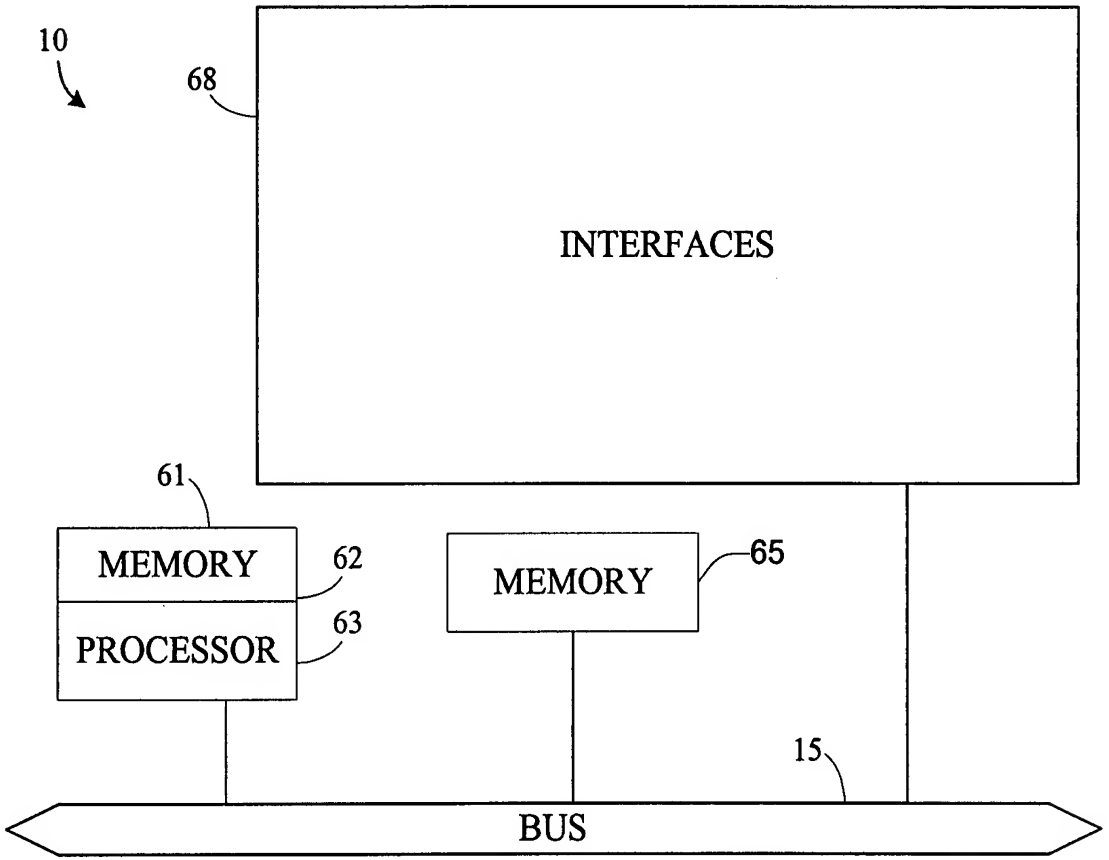

Figure 7